

BD BBL Pneumoslides Test

For *Streptococcus pneumoniae*

See package insert for more information

Reagent Reconstitution:

Reconstitute the Pneumoslides Polyvalent Positive Control with 0.5mL sterile purified water. And use within 6 months but prior to expiration date stated on the vial label. As with the rest of the kit, store at 2-8°C.

Specimen Handling:

These reagents are NOT recommended for use directly on clinical specimens. Organisms must first be isolated on solid media or demonstrate evidence of pure growth in broth culture. It is recommended that α -hemolytic colonies from suspect *S. pneumoniae* culture plates first be examined for characteristic colonial morphology and proper Gram stain reaction.

Test Procedure:

For colonies isolated on agar:

1. Perform Gram stain testing of 18-48h suspected α -hemolytic colonies from a solid medium.
2. If the Gram stain is indicative of *Streptococcus* species, prepare two separate smears of suspect colonies on the provided glass slide using a bacteriological loop. Use at least 2-3 colonies per smear.
3. Add one drop of sterile physiological next to each of the two bacterial smears. Gradually mix the saline with the colonies using the loop. Continue this procedure until the entire drop of saline has been transferred to the smear with colonies completely emulsified into a smooth suspension.
4. Thoroughly mix the antibody-coated latex bead suspensions before each use.
5. Add one drop of the Pneumoslides Latex negative Control reagent adjacent to one of the colony suspensions and mix the drops with a stirring stick provided.
6. Add one drop of Pneumoslides Antibody-Coated Latex Bead Suspension to the second colony suspension and mix, using the same stirring stick. **Note:** The same stirring stick must not be used for the Negative Latex Control if the Antibody-Coated Latex Suspension is mixed first.
7. A positive control using Pneumoslides Polyvalent Control should be run daily or with each batch tested using one drop of the reagent. Follow steps 4-6 above.
8. Rock the slide for 2-3 minutes. Read for agglutination using a high intensity incandescent light source.
9. Appropriately disinfect and clean the glass slide before reuse or storage.

Alternate Procedures:

For 4-hour cultures in broth:

1. Inoculate 5-10 colonies into 5mL of Brain Heart Infusion broth. Mix and incubate at 35°C for 4 hours.
2. After incubation, mix the BHI broth tube and transfer two 50 μ L drops onto separate areas of a glass slide.
3. Place a drop of Pneumoslides Latex Negative Control reagent next to one of the drops of culture suspension. Mix with a stirring stick.
4. Rock the slide and read reactions 2-3 minutes.

For broth blood cultures:

1. Perform Gram stain examinations of blood culture broth as soon as turbidity is evident. If the Gram stain is suggestive of a pure culture of *Streptococcus* species, proceed as follows.
2. Mix the blood culture broth and aseptically remove 2-3mL of the culture medium. Centrifuge the aliquot for 3 minutes at 2500rpms to separate the red blood cells.
3. Perform the latex agglutination test on the supernatant as described for the 4-hour broth cultures from steps 3-5.
4. A positive test provides presumptive identification of *S. pneumoniae* only. A negative result should not be regarded as conclusive evidence that *S. pneumoniae* is not present. Confirmation of both reactions using isolated colonies is necessary.

User Quality Control:

The Pneumoslides Polyvalent Positive Control should be tested with each batch of specimens.

The positive latex will yield strong agglutination within 3-3 minutes. The negative control latex reagent should remain homogeneous.

Periodically check latex reagents for performance by testing cultures of known pneumococci and viridans streptococci in parallel with test specimens.

Results and Interpretation:**Positive Tests:**

Positive tests will exhibit significantly stronger agglutination with the *Streptococcus pneumoniae* antibody-coated latex beads within 2-3 minutes as compared to the negative control latex beads. The negative control latex reagent may exhibit some graininess. This does not effect interpretation of a positive reaction.

Negative Tests:

Negative tests will exhibit absence of, or questionable agglutination in both the Pneumoslides *Streptococcus pneumoniae* Antibody-Coated Latex Bead Suspension reagents within 3 minutes.

Noninterpretable Tests:

Agglutination with both latex reagents renders the test noninterpretable.